WHAT IS CLAIMED IS:

1. A method for generating business models for solving a selected business problem comprising:

5   describing a plurality of computer-simulateable business models, wherein a business model describes operations of businesses for solving the business problem, and wherein a business model has an associated operational performance model,

       describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer

10 models patronize the business models to receive values from the business models

       determining the operational performances of the businesses described by the plurality of business models (i) by simulating the plurality of business models, and (ii) by simulating the environment, including simulating the customer models receiving values from the business models, and

15   generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method including

       (i) determining business-model fitness in dependence on the operational business-model performances,

       (ii) selecting one or more business models in dependence on their fitness,

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       (iii) transforming the selected business models into new business models by applying one or more genetic operators, wherein the new business models incorporate elements of the selected business models.

25 2. The method of claim 1 further comprising a step of repeating one or more times the steps of determining and generating, wherein each step of determining simulates the plurality of business models resulting from the previous step of generating.

3. The method of claim 1 wherein the business models are elements in a space of business

30 models for solving the business problem.

4. The method of claim 1 wherein at least two business models interact, and wherein the step of determining further comprises simulating interactions between business models.

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5. The method of claim 1 wherein the genetic operators comprise a cross-over operator which transforms at least two parent business models into at least one new business model by combining characteristics of both parent business models into the characteristics of the at least one new business model.

6. The method of claim 1 wherein the genetic operators comprise a mutation operator which transforms a parent business model into a new business model by modifying a characteristic of the parent business model.

7. The method of claim 1 wherein the business models comprise parameter data specifying characteristics of the business operations described by the business models.

8. The method of claim 1 wherein business model descriptions comprises one or more computer-simulateable value propositions (VP) which describe output values provided by businesses.

9. The method of claim 8 wherein VPs comprise descriptions of the natures of one or more goods or services provided, or qualities of the goods or services, or customers for goods and services, or relations with other business models, or marketing to customers or business models.

10. The method of claim 1 wherein business model descriptions comprises one or more computer-simulateable operational approaches (OA) which describe inputs to businesses and transformations of inputs to output values by businesses.

11. The method of claim 10 wherein the OAs comprise descriptions of inputs needed for the goods or services provided, or technology employed to produce the goods or services, or capital and labor needed for production.

12. The method of claim 1 wherein business model descriptions comprises one or more computer-simulateable revenue mechanisms (RM) which describe pricing and cost models by which businesses acquire revenues.

13. The method of claim 12 wherein the RMs comprise descriptions of a margin or an amount per transaction, or per unit time, or per unit volume, or transaction pricing

mechanism, or a subscription pricing mechanism, or a flat rate pricing mechanism, or a membership fee pricing mechanism.

14. The method of claim 1 wherein business models comprise descriptions of one or more

5   inputs to a business, one of more values output from a business, one or more transformations of inputs into output values by a business, labor and capital required for a business, and one or more pricing models for a business.

15. A method for generating business models for solving a selected business problem

10   comprising:

describing a plurality of computer-simulateable building blocks, wherein the building blocks comprise one or more business elements of the business problem, and wherein the building blocks further comprise (i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses, (ii)

15   one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses, and (iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues,

generating an initial plurality of business models, wherein a business model

20   describes operations of businesses for solving the business problem, and wherein a business model comprises a plurality of building blocks and an associated operational performance model,

determining the operational performances of the businesses described by the plurality of business models by simulating the plurality of business models, and

25   generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies genetic operators to the building-blocks of business models, and

repeating one or more times the steps of determining the operational performance

30   and generating a next plurality of business models, wherein each step of determining simulates that plurality of business models resulting from the previous step of generating.

16. The method of claim 15 wherein the business models constructed from the building blocks forms a space of business models for solving the business problem.

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17. The method of claim 15 wherein each business element comprises a description of only an input to a business, or only a value output from a business, or a transformation employed by a business, or only a consideration received by a business for an output value.

5   18. The method of claim 15 further comprising describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models, and wherein the step of determining operational performances further comprises simulating the environment, including simulating the
10   customer models receiving values from the business models.

19. The method of claim 18 wherein the customer models descriptions of customer behaviors, wherein the behaviors comprise patronizing a business model.

15   20. The method of claim 19 wherein the customer models descriptions of customer behaviors, wherein the behaviors further comprise choosing a business model to patronize and being idle.

21. The method of claim 15 wherein the evolutionary method comprises:
20   determining business-model fitness in dependence on the operational business-model performances,
     selecting one or more business models in dependence on their fitness, and
     transforming the selected business models into new business models by applying one or more genetic operators, wherein the new business models incorporate elements of the
25   selected business models.

22. The method of claim 21 wherein the genetic operators comprise a cross-over operator which transforms at least two parent business models into at least one new business model by selecting building blocks from both parent business models to be the building blocks of
30   the at least one new business model.

23. The method of claim 21 wherein the genetic operators comprise a mutation operator which transforms a parent business model into a new business model by modifying a characteristic of a building block of the parent business model.

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24. The method of claim 15 wherein each building block describes only one or more inputs to a business, or only one of more values output from a business, or only one or more transformations of inputs into output values by a business, or only one or more pricing models for a business, or only one or more performances of a business.

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25. The method of claim 15 wherein VP building blocks comprise business elements describing the natures of one or more goods or services provided, or qualities of the goods or services, or customers for goods and services, or relations with other business models, or marketing to customers or business models.

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26. The method of claim 15 wherein the OA building blocks comprise business elements describing inputs needed for goods or services provided, or technology employed to produce the goods or services, or capital and labor needed for production.

15   27. The method of claim 15 wherein the RM building blocks comprise business elements describing a margin or an amount per transaction, or per unit time, or per unit volume, or transaction pricing mechanism, or a subscription pricing mechanism, or a flat rate pricing mechanism, or a membership fee pricing mechanism.

20   28. A method for generating business models for solving a selected business problem the method comprising:

describing a plurality of computer-simulateable building blocks, wherein the building blocks comprise descriptions of one or more business elements of the business problem, and wherein business elements comprises descriptions of an input to a business, or

25   a value output from a business, or a transformation employed by a business, or a consideration received by a business for an output value,

describing one or more computer-simulateable customer models, wherein the customer models patronize the business model to receive values from the business model,

determining the operational performance of a business described by a business

30   model, wherein a business model comprises a plurality of building blocks and an associated operational performance model that describe operation of a business for solving the business problem, and wherein operational performance is determined (i) by simulating the business model, and (ii) by simulating the one or more customer models receiving values from the business model, and

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generating a final business model of improved performance by performing an optimization method, wherein the optimization method (i) uses a fitness dependent on the operational business-model performances, and (ii) substitutes or alters one or more building blocks of the business model.

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29. The method of claim 28 further comprising a step of repeating one or more times the steps of determining and generating, wherein each step of determining simulates that business model resulting from the previous step of generating.

10 30. The method of claim 28 wherein the optimization method comprises local search heuristics, or simulated annealing, or reinforcement learning, or adaptive computation and machine learning, or an evolutionary optimization method.

31. The method of claim 28 wherein the building blocks comprise one or more computer-
15 simulateable value proposition (VP) building blocks which describe output values provided by businesses.

32. The method of claim 28 wherein the building blocks comprise one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses.

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33. The method of claim 28 wherein the building blocks comprise one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues.

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34. A method for generating business models for solving a selected business problem comprising:

describing a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem and further
30 comprise

(i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses by comprising information describing the natures of one or more goods or services provided, or qualities of the goods or services, or customers for goods and services, or relations with other business models, or
35 marketing to customers or business models,

(ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing inputs needed for goods or services provided, or technology employed to produce the goods or services, or capital and labor

5   needed for production, and

(iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues by comprising information describing a margin or an amount per transaction, or per unit time, or per unit volume, or transaction pricing mechanism, or a subscription pricing mechanism,

10   or a flat rate pricing mechanism, or a membership fee pricing mechanism,

generating an initial plurality of business models, wherein a business model describes operations of businesses for solving the business problem, and wherein a business model comprises a plurality of building blocks and an associated operational performance model,

15   determining the operational performances of the businesses described by the plurality of business models by simulating the plurality of business models, and

generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies

20   genetic operators to the building-blocks of business models, and

repeating one or more times the steps of determining the operational performance and generating a next plurality of business models, wherein each step of determining simulates that plurality of business models resulting from the previous step of generating.

25   35. A method for generating business models for solving a selected business problem comprising:

describing a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem and further comprise

30   (i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses by comprising information describing the natures of one or more goods or services provided, or qualities of the goods or services, or customers for goods and services, or relations with other business models, or marketing to customers or business models,

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(ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing inputs needed for goods or services provided, or technology employed to produce the goods or services, or capital and labor

5   needed for production, and

(iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues by comprising information describing a margin or an amount per transaction, or per unit time, or per unit volume, or transaction pricing mechanism, or a subscription pricing mechanism,

10   or a flat rate pricing mechanism, or a membership fee pricing mechanism,

describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models,

generating an initial plurality of business models, wherein a business model

15   describes operations of businesses for solving the business problem, and wherein a business model comprises a plurality of building blocks and an associated operational performance model,

determining the operational performances of the businesses described by the plurality of business models by (i) simulating the plurality of business models and (ii)

20   simulating the environment, including simulating the customer models receiving values from the business models, and

generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies

25   genetic operators to the building-blocks of business models, and

repeating one or more times the steps of determining the operational performance and generating a next plurality of business models, wherein each step of determining simulates that plurality of business models resulting from the previous step of generating.

30   36. A method for generating business models for solving a selected business problem the method comprising:

describing a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem and further comprise

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(i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses by comprising information describing the natures of one or more goods or services provided, or qualities of the goods or services, or customers for goods and services, or relations with other business models, or

5 marketing to customers or business models,

(ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing inputs needed for goods or services provided, or technology employed to produce the goods or services, or capital and labor

10 needed for production, and

(iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues by comprising information describing a margin or an amount per transaction, or per unit time, or per unit volume, or transaction pricing mechanism, or a subscription pricing mechanism,

15 or a flat rate pricing mechanism, or a membership fee pricing mechanism,

describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models,

determining the operational performance of a business described by a business

20 model, wherein a business model comprises a plurality of building blocks and an associated operational performance model that describe operation of a business for solving the business problem, and wherein operational performance is determined (i) by simulating the business model, and (ii) by simulating the environment, including simulating the customer models receiving values from the business models, and

25 generating a final business model of improved performance by performing an optimization method, wherein the optimization method (i) uses a fitness dependent on the operational business-model performances, and (ii) substitutes or alters one or more building blocks of the business model.

30 37. The method of claim 36 wherein the optimization method comprises local search heuristics, or simulated annealing, or reinforcement learning, or adaptive computation and machine learning, or an evolutionary optimization method.

38. Computer executable software instructions stored on a computer readable medium, the

35 software instructions for causing a computer to perform the method of claim 15.

39. Computer executable software instructions stored on a computer readable medium, the software instructions for causing a computer to perform the method of claim 35.

40. Computer executable software instructions stored on a computer readable medium, the

5 software instructions for causing a computer to perform the method of claim 36.

41. A computer system for generating business models for solving a selected business problem comprising:

    a processor, and

10   a memory accessible to the processor, wherein the memory is configured with software instructions and data for causing the processor to perform the method of claim 15.

42. A computer system for generating business models for solving a selected business problem comprising:

15   a processor, and

    a memory accessible to the processor, wherein the memory is configured with software instructions and data for causing the processor to perform the method of claim 35.

43. A computer system for generating business models for solving a selected business

20 problem comprising:

    a processor, and

    a memory accessible to the processor, wherein the memory is configured with software instructions and data for causing the processor to perform the method of claim 36.

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